Figure 1. Example Digital Loop Carrier Network
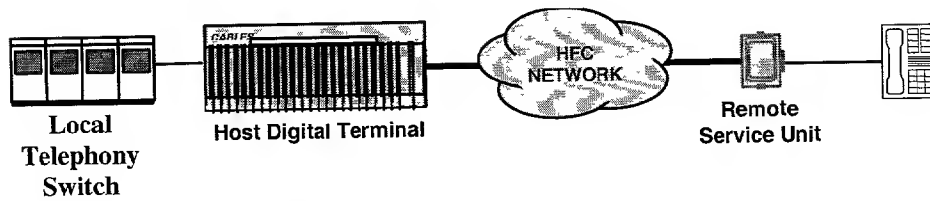

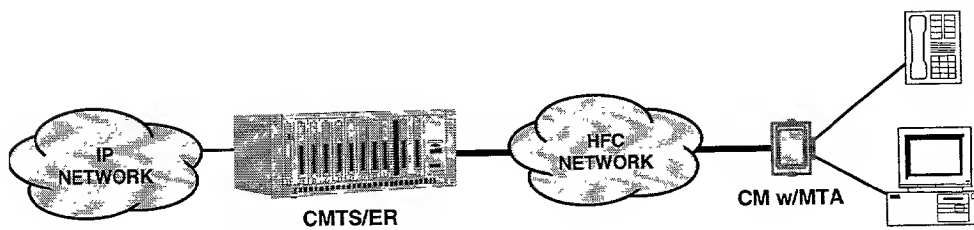**Figure 2. Example Telephony HFC Access System**

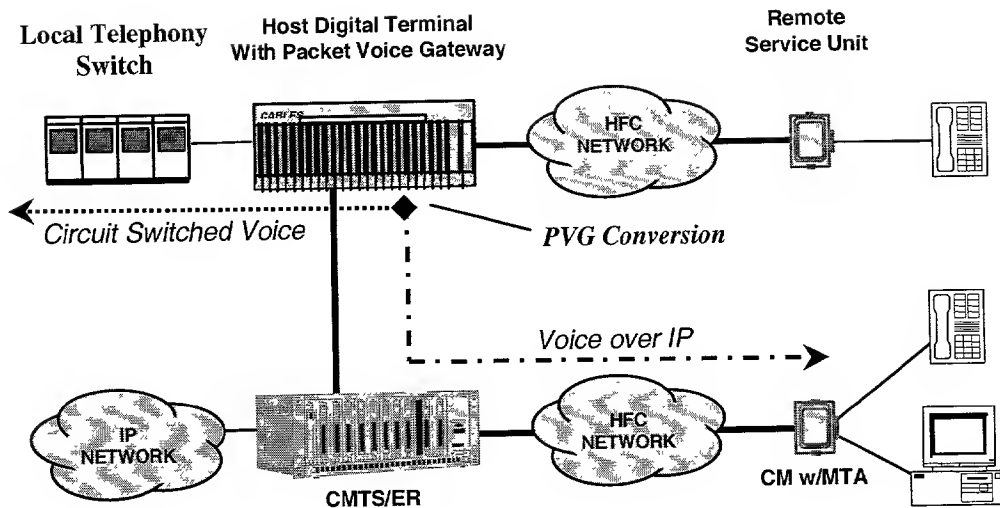**Figure 3. DOCSIS Based Telephony and Data HFC Access System**

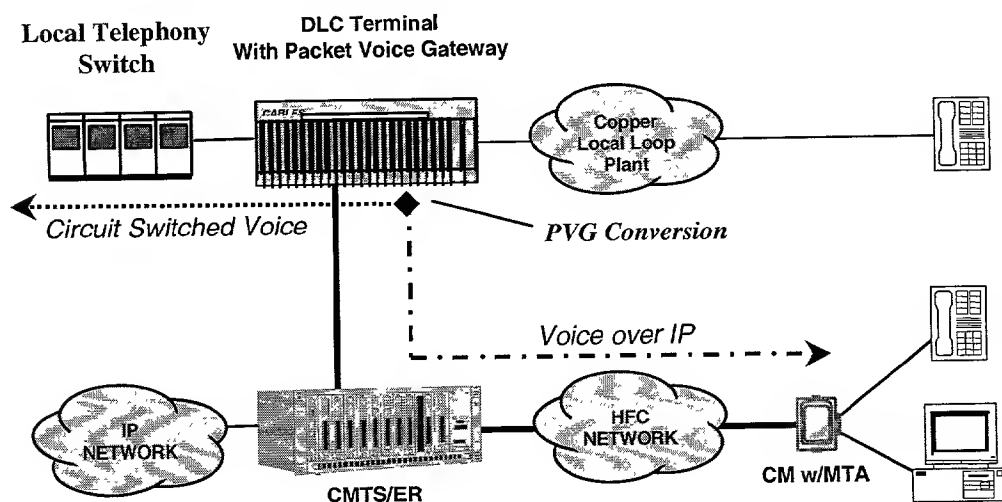**Fig. 4.** Example IP Access Network Conversion using the Bi-Directional PVG of the present invention in a HDT

Fig. 5. Example IP Access Network Conversion using the Bi-Directional PVG of the present invention in a DLC Terminal
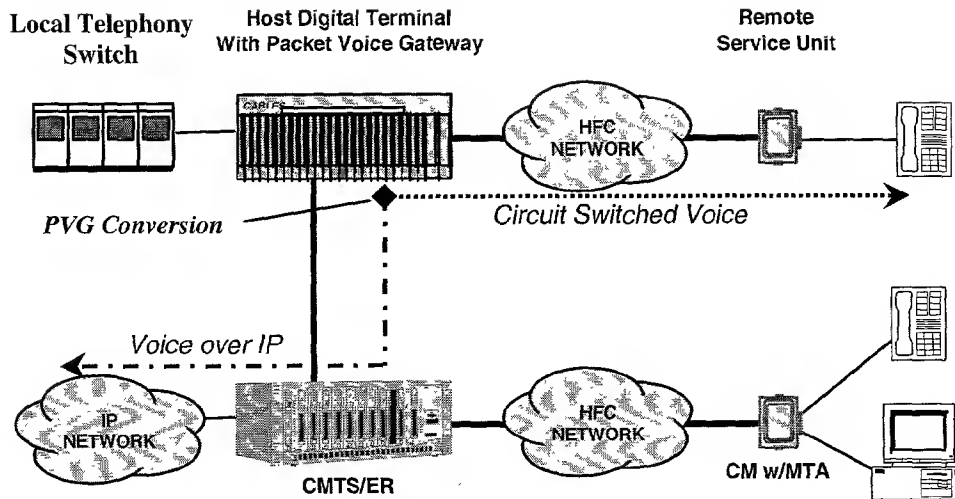
Local Telephony
Switch

Host Digital Terminal
With Packet Voice Gateway

Remote
Service Unit

HFC
NETWORK

PVG Conversion

Circuit Switched Voice

Voice over IP

IP
NETWORK

HFC
NETWORK

CMTS/ER

CM w/MTA

Fig. 6. Example Circuit Switched Access Network Conversion using the PVG of the present invention in a HDT

Local Telephony
Switch

DLC Terminal
With Packet Voice Gateway

Copper
Local Loop
Plant

PVG Conversion

Circuit Switched Voice

Voice over IP
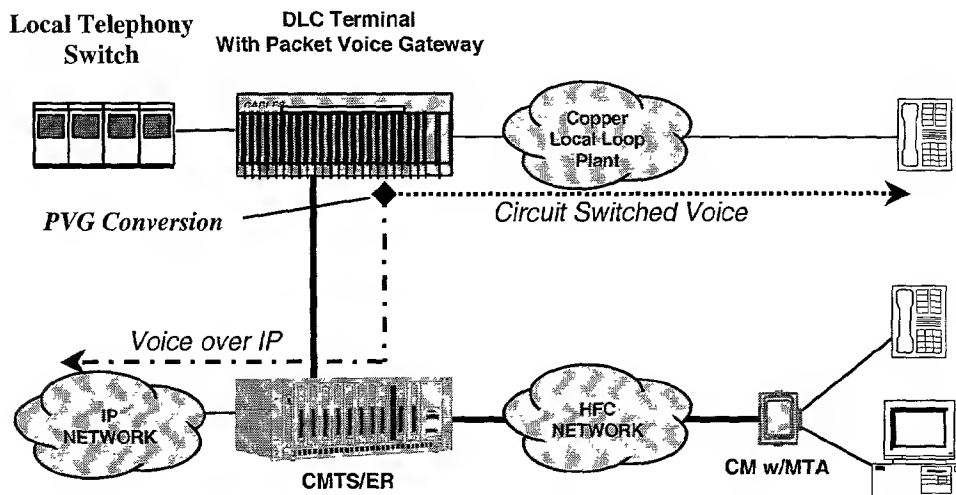
IP
NETWORK

HFC
NETWORK

CMTS/ER

CM w/MTA

Fig. 7. Example Circuit Switched Access Network Conversion using the PVG of the present invention in a DLC Terminal